WHAT IS CLAIMED IS:

1. A clamping socket apparatus for holding an integrated circuit in contact with a connector board comprising a support base, a support for an integrated circuit board in center portions of the support base, a sliding frame slidably movable in a direction generally perpendicular to a plane of the support base, a cover of size to overlie the center portions and cooperating with the base to hold an integrated circuit to be tested against a supported connector board, said cover being hinged along one edge about a hinge axis relative to the sliding frame, a cam actuator for controlling the sliding movement of the sliding frame, a cam actuator lever for moving the cams between a released position wherein the sliding frame is raised from the base, and a clamping position, the cover being pivotable from an open position to a closed position overlying the base and engaging an integrated circuit to be held against a supported connector board with the sliding frame in its clamped psotion and a cam actuator lever engaging member on the cover that is engaged by the cam actuator lever as the lever moves the sliding frame from the clamping position to the release position to pivot the cover to its open position.

2. The apparatus of claim 1 and a plurality of fins on the exterior of the cover for providing heat exchange surfaces for the cover.

3. The apparatus of claim 1, wherein said cam actuator lever comprises a handle having a cross member that moves in an arc as actuated, the cross engaging the cam actuator lever engaging member on the cover to moving the cover to its open position.

4. The apparatus of claim 1, wherein said sliding frame comprises a pair of sliding side members on opposite sides of the cover, said cover being pivotally mounted to said side members, said cam actuator comprising a pair of cams, one engaging each of the side members, both of the cams for the side members being operated simultaneously, the cam actuator lever engaging member on the cover comprising an arm extending outwardly from the hinge axis on an opposite side of the hinge axis from the cover, and said cam actuator engaging the arm as the cam actuator moves to a position that moves the sliding frame from the clamping position to the release position to thereby pivot the cover to its open position.

5. The apparatus of claim 4, wherein said cams are carried on said slidable slide members, a pair of bridge members overlying the cams, respectively, the cams engaging the bridge members to urge the sliding side members to the clamping position for clamping an integrated circuit against a supported connector board on the support base.

6. The apparatus of claim 5, wherein said cam actuator comprises a bail handle having a member that extends between opposite sides of the sliding frame, generally parallel to the hinge axis of the cover, and said bail comprising the cam lever actuator lever engaging member and said bail moving to an opposite side of the support base from its position when the cover is in its closed position, said cross member engaging the cam actuator engaging member on the cover and pivoting the cover to its open position when the bail is moved to move the sliding frame to its released position.

7. A socket assembly for holding an integrated circuit during testing or burn-in comprising:

a base, said base having peripheral walls defining a central opening of the shape of an integrated circuit to be held against provided contacts held relative to the base;

a movable frame slidably mounted relative to said base for movement toward and away from the provided contacts;

a cam actuator carried on the movable frame and reacting against surfaces carried by the base, said cam actuator being movable to move the frame toward and away from the provided contacts upon selective movement of the cam actuator; and

a clamping cover pivotally mounted on the movable frame for movement from a position overlying the contacts to a position permitting access to the contacts.

8. The socket assembly of claim 7, and a locking arm on a side of the frame, said locking arm being pivotally mounted onto the movable frame, a guide link for moving the locking arm to engage an edge of the cover as the cover moves to its position overlying the contacts.

9. The socket assembly of claim 8, wherein said cam actuator comprises a pair of cams on sides of the movable frame perpendicular to the side on which the locking arm is positioned, and a handle for simultaneously moving the cams about cam pivot axes.

10. The socket assembly of claim 7, wherein the cam actuator comprise a pair of cams mounted to the movable frame on opposite sides of the base about a common axis, and cam reaction members carried on the base and overlying the cams, respectively, the cams also engaging surfaces of the base so that as the cams are rotated, the movable frame is moved selectively toward and away from the base.

11. The socket assembly of claim 10, wherein the cam reaction members comprise bridges supported on the base at opposite ends of the bridges and the bridges having walls overlying the respective cam.

12. The socket assembly of claim 9, wherein the cover is hinged to the movable frames along an edge of the base about an axis parallel to the cam pivot axes.

13. The socket assembly of claim 11, wherein springs are provided between the base and the bridges to spring load the bridges toward the base.

14. The socket assembly of claim 7, wherein the base peripheral walls have recesses on inner edges thereof defining the central opening, said recesses receiving a circuit board carrying the contacts, and the contacts having a contact plane positioned at a level so that an integrated circuit

contacting the contacts is clamped against the contacts by the cover when the cover is in its position overlying the contacts and the slidable frames and cover are moved toward the contacts by the cam actuator.

15. The socket assembly of claim 14, wherein the cover has a temperature sensor therein for contacting an integrated circuit that is clamped against the contacts by the cover.

16. A socket assembly for holding an integrated circuit during testing or burn-in comprising:

a base, said base having peripheral walls defining a central opening that is generally rectangular in shape and of a size to permit an integrated circuit to be held to be received adjacent edges of the opening;

the peripheral walls having a support for a printed circuit to underlie the central opening and supported on the peripheral walls;

a pair of movable frames along two opposite sides of said central opening, said frames being movable toward and away from the peripheral walls defining the base;

an actuator for moving the movable frames toward and away from the base, and

a cover pivotally mounted to and extending between the movable frames, the cover being pivotable to a position overlying the central opening, and the actuator being operable to move the frames and cover to a clamping position overlying the central opening and moved toward the base, the cover being pivotably to a position clearing the central opening and the movable frames being movable to a loading position where the frames are moved away from the base.

17. The socket assembly of claim 16, wherein said actuator comprises a cam actuator rotatably mounted on the moveable frame and engaging surfaces supported with respect to the base to provide reaction forces moving the moveable frames selectively toward and away from the base.

18. The socket assembly of claim 16 and a handle mounted on the cam actuators for manually rotating the cam actuators, the handle including an arm engaging portion, an arm mounted on the cover and extending from the cover to a side of the pivotal mounting of the cover opposite from the cover, the arm being moved to pivot the cover when the handle is moved to actuate the cams.

19. The socket assembly of claim 17, wherein the cover has a free edge on a side of the cover opposite the pivotal mounting of the cover, and a locking arm

pivotally mounted on the movable frames on a side of the movable frames opposite the pivotal mounting of the cover, and a link between the base and the locking arm to move the locking arm to overlie and clamp the free edge of the cover with the cover overlying the central opening and with the movable frames moved toward the base.

20. The socket assembly of claim 19, wherein the free edge of the cover has a beveled surface which is engaged by the locking arm to clamp the cover against the integrated circuit engaging the contacts.